

OVERVIEW:
GOVERNOR'S COMMISSION
ON CLIMATE CHANGE
FEBRUARY – DECEMBER 2008

Nikki Rovner
September 10, 2014

TODAY'S OVERVIEW

- Establishment
- Membership
- Process
- Findings and Recommendations

ESTABLISHMENT

- 2006: Legislation calling for development of Virginia Energy Plan enacted
- 2007: Governor Kaine issued first Virginia Energy Plan
 - Identified 4 broad goals for 2017, including: *Reduce greenhouse gas emissions by 30 percent by 2025, bringing emissions back to 2000 levels.*
 - Included a recommendation to create a commission to address climate change and its possible impacts on Virginia.

ESTABLISHMENT

- **2007: Governor Kaine issued Executive Order 59, establishing the Commission on Climate Change and directing it to:**
 - Inventory the amount of and contributors to Virginia's greenhouse gas emissions, and projections through 2025;
 - Evaluate expected impacts of climate change on Virginia's natural resources, the health of its citizens, and the economy, including the industries of agriculture, forestry, tourism, and insurance;
 - Identify what Virginia needs to do to prepare for the likely consequences of climate change;
 - Identify the actions (beyond those identified in the Energy Plan) that need to be taken to achieve the 30% reduction goal; and
 - Identify climate change approaches being pursued by other states, regions, and the federal government.

MEMBERSHIP

- The Honorable L. Preston Bryant, Jr.,
Chair
- The Honorable Patrick O. Gottschalk, *ex officio*
- The Honorable Pierce R. Homer, *ex officio*
- Mr. Stephen A. Walz, *ex officio*
- Ms. LuAnn Bennett
- The Honorable Donald S. Beyer, Jr.
- The Honorable Joseph F. Bouchard
- The Honorable David Bulova
- Mr. Dan Carson Jr.
- Christine Chmura, Ph.D.
- The Reverend Richard Cizik
- The Honorable John Daniel, II
- The Honorable R. Creigh Deeds
- The Honorable Paul Ferguson
- Mr. Robert J. Fledderman
- Mr. Stuart Freudberg
- Mr. Felix Garcia
- Mr. Dale A. Gardner
- The Honorable John H. (Jack) Gibbons
- Ms. Jodi Gidley
- Mr. William S. Greenleaf
- The Honorable Penelope A. Gross
- Mr. David A. Heacock
- Mr. Robert F. Hemphill, Jr.
- Ms. Ann F. Jennings
- Mr. Michael L. Lipford
- Roger Mann, Ph.D.
- The Honorable Robert E. Martínez
- The Honorable Joe T. May
- Mr. Tyrone W. Murray
- The Honorable Ralph Northam
- Mr. R. Paul Orentas
- The Honorable Kenneth R. Plum
- Mr. Oliver A. Pollard, III
- Mr. Michael J. Quillen
- The Honorable Ron Rordam
- Mr. Harrison B. Rue
- Jagadish Shukla, Ph.D.
- Mr. Bruce Smart
- Mr. William A. “Skip” Stiles
- Dr. Lydia W. Thomas
- Mr. Michael Townes
- The Honorable Frank W. Wagner

PROCESS

- **Monthly meetings began in February 2008**
 - Governor Kaine provided charge
 - Workplan adopted
- **Work groups formed in June 2008**
 - Climate change adaptation and carbon sequestration
 - Transportation and land use
 - Electricity generation and other stationary sources
 - Built environment
- **Interim report issued in September 2008.**
Summarized:
 - 5 day-long meetings
 - ~40 expert presentations

PROCESS

■ Expert presentations

- Intergovernmental Panel on Climate Change
- Nature's role in capturing and storing carbon
- GHG Inventory for Virginia
- Impacts on natural systems and public health
- Impacts built environment and insurance
- New technologies and economic opportunities
- Climate change approaches being pursued by other governments
- Industry perspectives on voluntary actions and government programs
- Connections among climate change, transportation and land use

PROCESS

- Final report December 2008 – *Climate Change Action Plan*. Adopted unanimously.
 - Findings
 - Recommendations
 - Adaptation
 - Reducing GHG emissions

FINDINGS

- **Effects on the built environment and insurance**
 - A threat to national security
 - Affordability and availability of insurance
 - Sea level rise (2.3-5.2 feet), storm surge
- **Effects on natural systems**
 - Movement of species to higher altitudes and latitudes
 - Vulnerability of coastal wetlands
 - Effect of forest loss on carbon sequestration

FINDINGS

- **Effects on human health**
 - Extreme weather events effects on vulnerable populations
- **General principles regarding strategies**
 - Solutions will require public and private investment
 - Conservation of natural carbon sinks is cost-effective and has significant co-benefits
 - Three largest sources of GHGs: electricity generation, transportation, other uses of fuel
 - Energy efficiency and conservation are the least costly and most readily deployable energy resource options available

RECOMMENDATIONS – REDUCING EMISSIONS

- Energy efficiency and conservation
 - Mandatory energy efficiency standard for utilities: 19% of projected electricity needs by 2025
- Advocacy for a federal solution
 - Expected Cap-and-Trade legislation to be enacted within 4 years
- Reduce vehicle miles traveled
- Increase efficiency of the transportation fleet and use of alternative fuels
- Increase the proportion of energy demands that are met by renewable sources
- Increase the proportion of electricity generation provided by emissions-free sources of energy
- Promote natural carbon sequestration and CCS technology
- Commonwealth and local governments lead by example

RECOMMENDATIONS - ADAPTATION

- Focus and expand state capacity to ensure implementation of the Climate Change Action Plan
 - Establish a Sub-Cabinet/Office on Climate Change Response
- Educate the public
- Monitor, track and report on GHG emissions and the impacts of climate change
- Thorough review of state agency and local government authority to account for climate change in their actions

RECOMMENDATIONS - ADAPTATION

- **Prepare for the climate change impacts that cannot be prevented**
 - Encourage living shorelines, integrated shoreline management plans
 - Local governments in coastal areas – revise comprehensive plans and zoning ordinances
 - Transportation plans to minimize risk in siting infrastructure
 - Update Virginia Floodplain Management Plan
 - Acquire and process LiDAR data for the entire state
 - Assess the impact of climate change on emergency preparedness

CONCLUSION